

# **[METHOD AND SYSTEM FOR RAPID HEATING OF AN EMISSION CONTROL DEVICE]**

## **Abstract of Disclosure**

A method is disclosed for controlling operation of an engine coupled to an exhaust treatment catalyst. Under predetermined conditions, the method operates an engine with a first group of cylinders combusting a lean air/fuel mixture and a second group of cylinders pumping air only (i.e., without fuel injection). In addition, the engine control method also provides the following features in combination with the above-described split air/lean mode: idle speed control, sensor diagnostics, air/fuel ratio control, adaptive learning, fuel vapor purging, catalyst temperature estimation, default operation, and exhaust gas and emission control device temperature control. In addition, the engine control method also changes to combusting in all cylinders under preselected operating conditions such as fuel vapor purging, manifold vacuum control, and purging of stored oxidants in an emission control device.

## Figures

11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100